Serial No. 09/201,530 Page 2 of 15

IN THE CLAIMS

Please consider the claims as follows:

 (Currently Amended) Apparatus for providing demand television comprising: a broadcast encoder for <u>receiving and</u> encoding a real-time video frame sequence to form a broadcast bitstream;

a storage encoder for <u>receiving and</u> encoding the real-time video frame sequence to form a plurality of storage bitstreams, wherein said storage encoder comprises:

a first encoder for producing a play bitstream that contains information that, when decoded, produces a forward play video frame sequence, said first encoder receiving and encoding the real-time video frame sequence contemporaneously with said broadcast encoder receiving and encoding said real-time video frame sequence;

a frame subsampler for receiving and subsampling the real-time video frame sequence contemporaneously with said broadcast encoder and first encoder receiving and encoding said real-time video frame sequence;

a buffer, for storing subsampled frames of the real-time video frame sequence;

a second encoder for producing a fast forward bitstream that contains information that, when decoded, produces a fast-forward video frame sequence;

a third encoder for producing a fast-reverse bitstream that contains information that, when decoded, produces a fast-reverse video frame sequence; and

a controller that selects subsampled frames from the buffer and couples selected frames to the second and third encoders;

a transmission system for transmitting the broadcast bitstream to subscriber equipment;

a storage device for storing the plurality of storage bitstreams, wherein the storage device stores the plurality of storage bitstreams contemporaneously to the transmission system transmitting the broadcast bitstream; and

wherein said fast forward bitstream contains an Indicator that delimits an end of available data such that a transition from said fast forward bitstream to at least one of said breadcast bitstream and said play bitstream is appropriate.

283877-1

Serial No. 09/201,530 Page 3 of 15

(Original) The apparatus of claim 1 wherein said broadcast encoder is a high 2. data rate encoder.

Claims 3-5 Canceled.

- (Previously presented) The apparatus of claim 1 wherein said first encoder is an 6. MPEG encoder that encodes N frames of the video sequence.
- (Original) The apparatus of claim 6 wherein said second and third encoders are 7. MPEG encoders that encodes N subsampled frames.
- (Previously presented) The apparatus of claim 1 wherein the controller multiplexes selection of the frames from the buffer to apply a plurality of subsampled 8. frames to said second encoder to form said fast forward bitstream and then apply a plurality of subsampled frames to said third encoder to form said fast reverse bitstream.
- (Currently Amended) A method for providing demand television comprising the 9. steps of:

encoding, in real-time, a broadcast video frame sequence to form a broadcast bitstream, while contemporaneously encoding the broadcast video frame sequence to form a plurality of storage bitstreams, wherein said plurality of storage bitstreams are contemporaneously formed by the steps of:

encoding said frames to form a play bitstream contemporaneously with said encoding, in real-time, said broadcast video frame sequence to form said broadcast bitstream;

subsampling said broadcast video frames contemporaneously with respect to said encoding said frames to form said broadcast bitstream and said play bitstream;

buffering said subsampled frames;

recalling said buffered frames in a forward time sequence order; encoding said recalled buffered frames to form \underline{a} said fast forward bitstream;

recalling said buffered frames in a reverse time sequence order; and

Serial No. 09/201,530 Page 4 of 15

encoding said recalled buffered frames to form a fast reverse bitstream; broadcasting the broadcast bitstream to subscriber equipment, while contemporaneously storing the plurality of storage bitstreams within a storage device;

upon a subscriber selecting to view information previously broadcast by the and broadcast bitstream, transmitting to the subscriber the storage bitstream;

wherein said fast forward bitstream contains an indicator that delimits the end of available data-such that a transition from said fast forward bitstream to at least one of said broadcast bitstream and said play bitstream is appropriate.

(Original) The method of claim 9 wherein said broadcast bitstream is a high data 10. rate bitstream.

Canceled. Claims 11-12

- (Previously presented) The method of claim 9 wherein said play bitstream when 13. decoded forms a standard play frame sequence.
- (Previously presented) The method of claim 9 wherein said fast forward bitstream, when decoded, forms a fast forward frame sequence. 14.
- (Previously presented) The method of claim 9 wherein said fast reverse bitstream, when decoded, forms a fast reverse frame sequence. 15.
- (Previously presented) The method of claim 9 wherein said transmitting step

further comprises the steps of: recalling from said storage device a particular bitstream in response to a request for a particular bitstream type from a subscriber terminal;

addressing the requested bitstream to said requesting subscriber, transmitting said requested bitstream to said subscriber equipment.

Canceled. 17.

Serial No. 09/201,530 Page 5 of 15

18. (Previously presented) The method of claim 9 wherein the method further comprises a step of switching from transmitting a fast forward bitstream to transmitting said broadcast bitstream upon reaching the indicator.

Claims 19-22 (Canceled).

Claims 23-27 (Canceled).

- 28. (New) The apparatus of claim 1, further comprising:
 a transmission system for transmitting the broadcast bitstream to subscriber equipment.
- 29. (New) The apparatus of claim 28, further comprising: a storage device for storing the plurality of storage bitstreams, wherein the storage device stores the plurality of storage bitstreams contemporaneously to the transmission system transmitting the broadcast bitstream.
- 30. (New) The apparatus of claim 28, wherein said fast forward bitstream contains an indicator that delimits an end of available data such that a transition from said fast forward bitstream to at least one of said broadcast bitstream and said play bitstream is appropriate.
- 31. (New) The method of claim 9, further comprising: broadcasting the broadcast bitstream to subscriber equipment, while contemporaneously storing the plurality of storage bitstreams within a storage device.
- 32. (New) The method of claim 9, wherein upon a subscriber selecting to view information previously broadcast by the broadcast bitstream, transmitting to the subscriber the storage bitstream.
- 33. (New) The method of claim 9, wherein said fast forward bitstream contains an indicator that delimits the end of available data such that a transition from said fast forward bitstream to at least one of said broadcast bitstream and said play bitstream is appropriate.

283877-1

Serial No. 09/201,530 Page 6 of 15

34. (New) The method of claim 33, wherein said storage bitstream comprises at least a play bitstream and a fast forward bitstream, and upon said fast forward bitstream being exhausted of data, automatically switching from said storage bitstream to said broadcast bitstream.